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IN THE

Supreme Court of the United States

OCTOBER TERM, 1970

No. 697

UNIFLOW MANUFACTURING CO. and
JEFFERSON ICE CO., *Petitioners,*

v.

KING-SEELEY THERMOS CO., *Respondent.*

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT

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Petitioners Uniflow Manufacturing Co. and Jefferson Ice Co. respectfully pray that a writ of certiorari issue to review the judgment and opinion of the United States Court of Appeals for the Sixth Circuit entered in this proceeding on June 18, 1970.

OPINIONS BELOW

The unreported opinion of the Court of Appeals is reprinted in the Appendix, p. 3a, *infra*. The unreported opinion of the District Court for the Eastern District of Michigan is reprinted in the Appendix, p. 15a, *infra*.

JURISDICTION

The judgment of the Court of Appeals is dated and was entered on June 18, 1970. The jurisdiction of this Court is invoked under 28 U.S.C. § 1254(1).

QUESTION PRESENTED

In view of this Court's recent unanimous holding that a patent on a combination of old elements is valid only if the cooperation of those old elements is synergistic, must not this synergism also be found present in an accused device before that device can be held to infringe that patent?

CONSTITUTIONAL PROVISION AND STATUTES INVOLVED

This case involves Article I, Section 8, Clause 8, of the Constitution and Sections 101, 102, 103 and 271(a) of the Patent Code of 1952, 35 U.S.C. §§ 101, 102, 103 and 271(a). These provisions are set forth in the Appendix beginning at p. 1a, *infra*.

STATEMENT OF THE CASE

Uniflow Manufacturing Co. (Uniflow) brought suit in the District Court for declaratory judgment under 28 U.S.C. §§ 2201 and 2202 that United States Patent 2,753,694 (the Trow patent) owned by King-Seeley Thermos Co. (King-Seeley) was invalid and not infringed by Uniflow's ice-making machine. Jefferson Ice Co. (Jefferson), a distributor for Uniflow's products, intervened as a third party plaintiff. King-Seeley counterclaimed charging Uniflow with infringement of Claim 4 of the patent.

At trial, Uniflow did not contest the validity of Claim 4 (the only claim asserted by King-Seeley to

be infringed), but did maintain that Claim 4, as limited by the prior art, was not infringed by Uniflow's ice-making machine.

The District Court, without reference to the prior art, concluded that the overall operation of the Uniflow machine was substantially identical to the operation of the patented King-Seeley machine and that the ice flakes produced by both machines were substantially identical.

The Court of Appeals, after giving due regard to the fact that the District Court saw the machines in operation, found that the District Court's finding of infringement was not clearly erroneous and affirmed this finding.

REASONS FOR GRANTING THE WRIT

Introduction

This Court has recently unanimously reaffirmed the position that patents covering combinations of elements known to the prior art are validly granted only where the effect of the cooperating elements in the combination is demonstrated to be greater than the sum of the effects taken separately, i.e. where "synergism" is present, *Anderson's-Black Rock, Inc.* v. *Pavement Salvage Co.*[1] This interpretation of the statutory standard of non-obviousness[2] is dictated by the constitutional statement of purpose for the patent laws,

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[1] 90 S.Ct. 305 (1969). That the same standard was applied under the prior patent statute, see Great A. & P. Tea Co. v. Supermarket Equip. Corp., 340 U.S. 147, 153 (1950).

[2] 35 U.S.C. § 103 (1965).

namely that the limited monopoly granted to inventors be "To promote the Progress of . . . useful Arts".[3]

The manner in which these limited patent monopolies are enforced in the federal courts entails, almost universally, a two-step determination:[4]

1) validity[5]—is the monopoly lawfully granted, i.e. in accordance with statutory[6] and constitutional requirements[7]?

2) infringement[8]—is the manufacture[9] of the accused device a violation of that lawful monopoly?

The Manner in Which Courts Determine Infringement

While the first of these issues—validity of patents—has repeatedly arrested the attention of this Court,[10] the trouble-free nature of the second—infringement—issue appears to be tacitly assumed. The basis for this assumption is the shibboleth that the claims of a patent provide the measure of its infringement. In its most recent consideration of this topic in the

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[3] 90 S.Ct. at 308, citing U.S. const. art. I, § 8.

[4] A. SMITH, PATENT LAW 852 (rev. ed. 1964).

[5] 35 U.S.C. § 282(2) (1965).

[6] 35 U.S.C. §§ 101, 102, 103 (1965).

[7] U.S. CONST. art. I, § 8.

[8] 35 U.S.C. § 282(1) (1965).

[9] 35 U.S.C. § 271(a) (1965).

[10] Since the enactment of the present patent statute in 1952, this Court has considered the issue in Anderson's-Black Rock, Inc. v. Pavement Salvage Co., 90 S.Ct. 305 (1969) and Graham v. John Deere Co., 383 U.S. 1 (1966).

Graver Tank[11] case, over twenty years ago, this Court expressed the rule in the following manner:

> In determining whether an accused device or composition infringes a valid patent, resort must be had in the first instance to the words of the claim. If accused matter falls clearly within the claim, infringement is made out and that is the end of it.[12]

From the remainder of that same opinion, however, it is clear that the words of the claims under no circumstance provide "the end of it", if indeed they provide even a beginning. For, we are told, there are firstly devices which though not within the language of the claim nevertheless constitute an infringement under the well-known "doctrine of equivalents",[13] and there are also devices which, though within the literal words of the claim, are so far changed from the patented device as to perform its function in a substantially different way and thereby escape infringement[14] under the doctrine of *Westinghouse* v. *Boyden Power Brake Co.*[15]

As a result of these shortcomings of claim language as the measure of infringement, the test which is actually applied is whether the accused device performs "substantially the same function in substantially the

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[11] Graver Tank & Mfg. Co. v. Linde Air Products Co., 339 U.S. 605 (1950).

[12] Id. at 607.

[13] Id. at 608.

[14] Id. at 608, 609.

[15] 170 U.S. 536, 568 (1898).

same way to obtain the same result" as the patented article.[16]

The Opportunity for Erroneous Enlargement of Patent Monopolies Under the Present Infringement Test

Whatever the suitability of this test for the determination of infringement of other types of patents, the absence of guidelines from this Court to the test's application in combination patent cases has led to erroneous findings of infringement of such patents. In consequence, accused devices that do not display the synergistic combination of effects which was the basis for the grant of the combination patent are unlawfully included within such patent monopolies. This is because the multi-element accused combination will frequently have elements which greatly resemble the elements of the patented combination and which produce the same—unpatentable—result.[17] The unfortunate effect of the current test is that it invites an element-by-element comparison between the accused and the patented devices to determine if each element performs "substantially the same function in substantially the same way" without calling attention to the fact that all of those same elements performing "substantially the same function in substantially the same way" may have been known to the prior art. The test virtually seduces the trier into a finding of infringement without ever considering whether the

[16] Graver Tank & Mfg. Co. v. Linde Air Products Co., 339 U.S. 605 (1950).

[17] "It is not the result, effect, or purpose to be accomplished which constitutes invention, or entitles a party to a patent, but the mechanical means or instrumentalities by which the object sought is to be attained." Miller v. Eagle Manufacturing Co., 151 U.S. 186, 201 (1894).

synergistic cooperation of the elements is employed in the accused device.

Proposal for a More Reliable Infringement Test

It is only by adopting an infringement test which ascertains (1) the difference between (a) the cooperation of the effect of the elements in the patented combination from (b) what is known in the prior art of those effects and of their cooperation, and then (2) requires that this difference be identified as present in the accused device, that the extension of a lawfully granted combination-of-elements patent beyond its statutory and constitutional scope can be avoided.

Application of the Present Infringement Test in the Case at Bar Led to Unlawful Extension of Lawfully Granted Patent Monopoly

The case at bar, involving the rather simple technology of machines for making ice flake chips such as are used at soft drink fountains and for perishable food displays, illustrates well the pitfalls attendant to the use of the current infringement test. The Trow patent in suit[18] covers a six-element combination flake ice making machine.[19] Five of those same elements were previously shown in combination to form a flake ice making machine[20] in the now-expired prior art.

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[18] U.S. Patent 2,753,694, F. A. Trow and M. Nelson, "Ice Disintegrating and Chip Delivering Spiral Ice Chip Producing Machine", issued July 10, 1956.

[19] These six elements are, respectively, sections b, c, d, e, f and g of Claim 4 which is set forth in the Opinion of the Court of Appeals, Appendix at 7a, 8a.

[20] "The Prior Art Nitsch Machine", Opinion of the Court of Appeals, Appendix at 5a.

Nitsch patent.[21] However, the addition by Trow of the sixth element to this combination so improved the cooperation of the elements as to transform it from a temperamental machine which more often than not either jammed up or else produced commercially unsuitable slushy ice with too high a water content into a reliable machine producing "saleable ice", i.e. non-slushy ice, despite the absence of frequent adjustment and manipulation by an operator.[22]

Recognizing this synergism, a number of courts found the Trow patent on this six-element combination to be valid in several earlier infringement actions brought against other accused devices.[23] In the action at bar, petitioners conceded the patent to be valid, but contended that with their machine they had achieved the same effect—reliably producing "saleable ice"—without employing the patented synergistic combination of effects, and therefore had not infringed the patent.[24]

The prior art Nitsch machine, the patented Trow machine and the accused Kuebler machine[25] are all

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[21] U.S. Patent 2,597,515, J. M. Nitsch, "Automatic Machine for Freezing Spiral Ice Chips", issued May 20, 1952.

[22] "The Trow Machine", Opinion of the Court of Appeals, Appendix at 6a, 7a.

[23] King-Seeley Thermos Co. v. Millersville Mfg. Co., 296 F.Supp. 247 (M.D. Tenn. 1968), *aff'd*, 412 F.2d 318 (6th Cir. 1969); King-Seeley Thermos Co. v. Tastee Freeze Industries, Inc., 357 F.2d 875 (7th Cir. 1966); King-Seeley Thermos Co. v. Refrigerated Dispensers, Inc., 354 F.2d 533 (10th Cir. 1965); King-Seeley v. Cold Corp. of America, 182 F.Supp. 768 (N.D. Ill. 1960).

[24] "The Kuebler Machine", Opinion of the Court of Appeals, Appendix at 7a.

[25] Id.

flake ice chip producing machines, and *each* has the following elements in common with the others:[26]

1. A hollow cylinder standing on end (vertical axis) closed at the bottom and open at the top;
2. A water connection to run water into the cylinder and to keep adding water to it as ice is removed;
3. An ordinary refrigeration coil wrapped around the outside of the cylinder to chill the cylinder and freeze ice on its inner surface;
4. A spiral auger (screw) mounted in the cylinder so that its spiral edge is very close all around to the inside wall of the cylinder; and

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[26] The more technical description of these elements as set forth in claim 4 of the Trow patent in suit and as subdivided into elements in the Opinion of the Court of Appeals, Appendix at 7a, 8a, may be found in subparagraphs b-f, respectively below:

(a) "4. An ice chip producing machine comprising

(b) an elongated freezing chamber having an open end,

(c) means for supplying water to the inside of said freezing chamber,

(d) means for cooling at least a portion of said freezing chamber to freeze ice on the inside surface thereof,

(e) an ice conveying auger rotatably mounted in the freezing chamber with its spiral edge disposed in closely spaced relation to the inside wall of said chamber,

(f) means for constantly rotating the auger to cause said spiral edge to shear off ice frozen on the inside wall of the chamber constantly to deliver ice to said open end of the freezing chamber,

(g) and an outwardly inclined ice disintegrating and removing member positioned in said open end of the chamber and provided with an ice peeling mold-board-like surface positioned to engage ice carried by the auger,

(h) said constant rotation of the auger serving positively and constantly to convey ice to and force it against said mold-board-like surface to break up and positively remove ice from the auger and discharge it as discrete ice chips."

5. Means for turning the auger so that the spiral edge scrapes ice off the inside wall of the cylinder and conveys it upwards toward the open end.

The prior art Nitsch machine was able to make flake ice that way—sometimes. In the words of the Court of Appeals' opinion:

> The Nitsch machine never achieved significant commercial success because it contained a serious defect. If too many water droplets were trapped between the particles of ice, the ice would lump together and form a slushy ice that was not marketable. On the other hand if the ice flaked from the cylinder wall did not contain enough water, a mass was formed causing the auger to jam. Although there was a very narrow range in which the machine could operate, varying types of water in different parts of the country, which freeze at different rates, caused a serious problem of keeping the machine adjusted properly. The balance necessary to produce saleable ice in the Nitsch machine kept it from being commercially successful.[27]

The patentee Trow added to this combination an element which he calls a breakerhead and which changes the cooperation of the other five elements to produce a new result: The reliable production of saleable (nonslushy) flake ice chips. This breakerhead is defined by Trow as

> an outwardly inclined ice disintegrating and removing member positioned in said open end of the chamber and provided with an ice peeling moldboard like surface positioned to engage ice carried by the auger.[28]

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[27] Opinion of the Court of Appeals, Appendix at 5a.

[28] Element g of claim 4 of the patent in suit, note 26 *supra*.

The prior art had recognized the need for providing an ice-removing element for the above-described five-element combination which would split off the ice sticking to the auger as it advances out of the cylinder, causing it to fall into a trough in the form of chips.[29] However, Trow's breakerhead achieves more than simply removing the ice that sticks to the auger: it causes an interaction among the elements whereby the ice can be left in a slushy condition throughout the cylinder (thereby preventing "jam-up") because it is then substantially "dewatered" to form "saleable" (non-slushy) ice by the action of the breakerhead.[30]

The accused Kuebler machine employs a deflector in place of the patented machine's breakerhead and also reliably produces "saleable" ice,[31] a clearly unpatentable result. Petitioner contended below that the cooperation of the combined elements in the accused machine produces this unpatentable result by causing the ice particles in the cylinder to rotate, i.e. to follow a spirally upward path through the cylinder, so that the ice particles are subjected to a lengthier period of refrigeration while following this longer spiral path and reach the top of the cylinder in a condition which

[29] On another ice making machine also made by Nitsch, that preceded the machine of the Nitsch patent, there was a metal finger to split the spirals of ice as they emerged from the cylinder. At Vol. 4, p. 61 of the record at trial, Marcus Nelson, the coinventor of the Trow machine stated: "As I recall it, on the original [Nitsch] machine, there was also a metal finger which was positioned above the freezing chamber." At Vol. 4, p. 62 of the record at trial, Marcus Nelson stated the function of this metal finger. "It was more as a splitter to split the spirals as they came up the freezing tube."

[30] Note 22 *supra*.

[31] Opinion of the Court of Appeals, Appendix at 5a.

requires essentially no dewatering. This same rotation of ice particles, it was contended, causes sufficiently rapid movement of the ice particles in the cylinder to prevent the "jam-up" encountered in the prior art device.[32] In other words, petitioner contended below that it was achieving the result of the patented combination without employing the synergism of the patented combination, but rather by combining the elements to produce a different combined effect that produces the same result.

The District Court, however, saw no reason to seek to identify the presence of the synergistic cooperation of the patented combination in the accused machine. Rather, it concentrated on the term "mold-board-like surface"[33] of the patent claim:

> I find as a fact that mold-boards consist of multiple types of surfaces, to the extent that a mold-board-like surface, as recited in claim 4, could include any type of surface that could or would be so positioned as to engage the ice that rides up onto this surface by the action of the auger. . . .[34]

With this definition of the shape of the patented breakerhead the District Court compared the *elements* combined in the accused machine to those combined

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[32] At 8 of APPELLANT'S MAIN BRIEF, petitioner contended that: "The rotational motion imparted by the deflector causes the ice particles to move much more rapidly in the Kuebler machine than in either the Nitsch or the Trow machines. This fast movement of the ice particles prevents adjacent ice particles from sticking together thereby preventing the machine from "jamming-up". The Court of Appeals did not comment on this statement as, apparently, it had no bearing on their decision.

[33] Element g of claim 4, note 26 *supra*.

[34] Opinion of the District Court, Appendix at 22a.

in the patented machine (including those elements which had also been found in combination in the prior art) and concluded that

> the function and operation of the ice making machines covered by the patent in suit and the function and operation of . . . [the accused machines] are substantially identical and that the ice flakes produced by the machines covered by the patent in suit and the accused device are practically identical in substance and design.[35]

Thus the District Court reached its conclusion of infringement by applying the *Graver* test[36] to the entire combination of elements and by finding that the *elements* of the accused and patented machines produce substantially the same function in substantially the same way without ever seeking—let alone finding—the presence of the patentable synergistic *combination of effects* of those elements in the accused device. The court then buttressed its conclusion by finding that the accused machine produced the same *result* (i.e. the ice flakes) as the patented machine, despite the fact that this result is totally unpatentable.

The Circuit Court, finding a conflict of testimony, left the District Court's finding undisturbed under the "clearly erroneous rule" without any review of the legal measure as to what constitutes infringement.[37]

Thus petitioners have been held liable for infringing the combination patent in suit without any determination ever having been made that its accused

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[35] Opinion of the Court of Appeals, Appendix at 9a, 10a.

[36] Note 11 *supra*.

[37] Opinion of the Court of Appeals, Appendix at 12a.

machine employs the synergism on which the validity of the patent is based. In consequence, a combination-of-elements patent awarded for a particular synergistic combination of effects is enforced against a combination producing the same unpatentable result but without employing that synergism—an unlawful extension of a lawfully granted patent monopoly.

CONCLUSION

The writ prayed for should be granted to assure that patent monopolies for combinations of elements, where lawfully granted, are not unlawfully expanded in their enforcement.

Respectfully submitted,

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